

## RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.

Application Serial Number:

Source:

Date Processed by STIC:

10/789,494B  
IFWO  
2-3-05

# ***ENTERED***

CRF Errors Edited by the STIC Systems  
Branch

Serial Number: 10/789494B

CRF Edit Date: 2-9-05

Edited by: 722

\_\_\_ Realigned nucleic acid/amino acid numbers/text: in cases where the sequence text "wrapped" to the next line

\_\_\_ Corrected the SEQ ID NO. Sequence numbers edited were:

\_\_\_\_\_

\_\_\_ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

\_\_\_\_\_

\_\_\_ Deleted: \_\_\_ invalid beginning/end-of-file text ; \_\_\_ page numbers

\_\_\_ Inserted mandatory headings/numeric identifiers, specifically:

\_\_\_\_\_

\_\_\_ Moved responses to same line as heading/numeric identifier, specifically:

\_\_\_\_\_

✓ Other:

Corrected Amino Acid  
numbering in seq ID #14.



IFWO

## RAW SEQUENCE LISTING

DATE: 02/09/2005

PATENT APPLICATION: US/10/789,494B

TIME: 17:16:28

Input Set : A:\pto.kd.txt

Output Set: N:\CRF4\02092005\J789494B.raw

```

2 <110> APPLICANT: TSUBOUCHI, Kozo
3   YAMADA, Hiromi
5 <120> TITLE OF INVENTION: EXTRACTION AND UTILIZATION OF CELL
6   GROWTH-PROMOTING PEPTIDES FROM SILK PROTEIN
8 <130> FILE REFERENCE: OPS 635
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/789,494B
11 <141> CURRENT FILING DATE: 2004-02-27
13 <150> PRIOR APPLICATION NUMBER: JP 2003-55048
14 <151> PRIOR FILING DATE: 2003-02-28
16 <160> NUMBER OF SEQ ID NOS: 85
18 <210> SEQ ID NO: 1
19 <211> LENGTH: 10
20 <212> TYPE: PRT
21 <213> ORGANISM: Bombyx mori
23 <400> SEQUENCE: 1
24 Val Ile Thr Thr Asp Ser Asp Gly Asn Glu
25           5              10
27 <210> SEQ ID NO: 2
28 <211> LENGTH: 8
29 <212> TYPE: PRT
30 <213> ORGANISM: Bombyx mori
32 <400> SEQUENCE: 2
33 Asn Ile Asn Asp Phe Asp Glu Asp
34           5
36 <210> SEQ ID NO: 3
37 <211> LENGTH: 23
38 <212> TYPE: PRT
39 <213> ORGANISM: Bombyx mori
41 <400> SEQUENCE: 3
42 Ala Ala Ser Ser Val Ser Ser Ala Ser Ser Arg Ser Tyr Asp Tyr Ser Arg Arg Asn Val
43           5              10              15              20
44 Arg Lys Asn
46 <210> SEQ ID NO: 4
47 <211> LENGTH: 29
48 <212> TYPE: PRT
49 <213> ORGANISM: Bombyx mori
51 <400> SEQUENCE: 4
52 Gly Ser Ser Gly Phe Gly Pro Tyr Val Ala His Gly Gly Tyr Ser Gly Tyr Glu Tyr Ala
53           5              10              15              20
54 Trp Ser Ser Glu Ser Asp Phe Gly Thr
55           25
57 <210> SEQ ID NO: 5
58 <211> LENGTH: 12

```

## RAW SEQUENCE LISTING

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TIME: 17:16:28

Input Set : A:\pto.kd.txt

Output Set: N:\CRF4\02092005\J789494B.raw

```

59 <212> TYPE: PRT
60 <213> ORGANISM: Antheraea yamamai
62 <400> SEQUENCE: 5
63 Tyr Gly Trp Gly Asp Gly Gly Tyr Gly Ser Asp Ser
64           5                      10
66 <210> SEQ ID NO: 6
67 <211> LENGTH: 6
68 <212> TYPE: PRT
69 <213> ORGANISM: Antheraea yamamai
71 <400> SEQUENCE: 6
72 Asp Glu Tyr Val Asp Asn
73           5
75 <210> SEQ ID NO: 7
76 <211> LENGTH: 20
77 <212> TYPE: PRT
78 <213> ORGANISM: Antheraea yamamai
80 <400> SEQUENCE: 7
81 Val Glu Thr Ile Val Leu Glu Glu Asp Pro Tyr Gly His Glu Asp Ile Tyr Glu Glu Asp
82           5                      10                      15                      20
84 <210> SEQ ID NO: 8
85 <211> LENGTH: 13
86 <212> TYPE: PRT
87 <213> ORGANISM: Antheraea yamamai
89 <400> SEQUENCE: 8
90 Asp Asp Gly Phe Val Leu Asp Gly Gly Tyr Asp Ser Glu
91           5                      10
93 <210> SEQ ID NO: 9
94 <211> LENGTH: 151
95 <212> TYPE: PRT
96 <213> ORGANISM: Bombyx mori
98 <400> SEQUENCE: 9
99 Met Arg Val Lys Thr Phe Val Ile Leu Cys Cys Ala Leu Gln Tyr Val Ala Tyr Thr Asn
100           5                      10                      15                      20
101 Ala Asn Ile Asn Asp Phe Asp Glu Asp Tyr Phe Gly Ser Asp Val Thr Val Gln Ser Ser
102           25                      30                      35                      40
103 Asn Thr Thr Asp Glu Ile Ile Arg Asp Ala Ser Gly Ala Val Ile Glu Glu Gln Ile Thr
104           45                      50                      55                      60
105 Thr Lys Lys Met Gln Arg Lys Asn Lys Asn His Gly Ile Leu Gly Lys Asn Glu Lys Met
106           65                      70                      75                      80
107 Ile Lys Thr Phe Val Ile Thr Thr Asp Ser Asp Gly Asn Glu Ser Ile Val Glu Glu Asp
108           85                      90                      95                      100
109 Val Leu Met Lys Thr Leu Ser Asp Gly Thr Val Ala Gln Ser Tyr Val Ala Ala Asp Ala
110           105                     110                     115                     120
111 Gly Ala Tyr Ser Gln Ser Gly Pro Tyr Val Ser Asn Ser Gly Tyr Ser Thr His Gln Gly
112           125                     130                     135                     140
113 Tyr Thr Ser Asp Phe Ser Thr Ser Ala Ala Val
114           145                     150
116 <210> SEQ ID NO: 10
117 <211> LENGTH: 30

```

## RAW SEQUENCE LISTING

DATE: 02/09/2005

PATENT APPLICATION: US/10/789,494B

TIME: 17:16:28

Input Set : A:\pto.kd.txt

Output Set: N:\CRF4\02092005\J789494B.raw

```

118 <212> TYPE: PRT
119 <213> ORGANISM: Bombyx mori
121 <400> SEQUENCE: 10
122 Gly Ser Ser Gly Phe Gly Pro Tyr Val Ala Asn Gly Gly Tyr Ser Arg Ser Asp Gly Tyr
123      5      10      15      20
124 Glu Tyr Ala Trp Ser Ser Asp Phe Gly Thr
125      25      30
127 <210> SEQ ID NO: 11
128 <211> LENGTH: 29
129 <212> TYPE: PRT
130 <213> ORGANISM: Bombyx mori
132 <400> SEQUENCE: 11
133 Gly Ser Ser Gly Phe Gly Pro Tyr Val Ala His Gly Gly Tyr Ser Gly Tyr Glu Tyr Ala
134      5      10      15      20
135 Trp Ser Ser Glu Ser Asp Phe Gly Thr
136      25
138 <210> SEQ ID NO: 12
139 <211> LENGTH: 29
140 <212> TYPE: PRT
141 <213> ORGANISM: Bombyx mori
143 <400> SEQUENCE: 12
144 Gly Ser Ser Gly Phe Gly Pro Tyr Val Ala Asn Gly Gly Tyr Ser Gly Tyr Glu Tyr Ala
145      5      10      15      20
146 Trp Ser Ser Glu Ser Asp Phe Gly Thr
147      25
149 <210> SEQ ID NO: 13
150 <211> LENGTH: 29
151 <212> TYPE: PRT
152 <213> ORGANISM: Bombyx mori
154 <400> SEQUENCE: 13
155 Gly Ser Ser Gly Phe Gly Pro Tyr Val Ala His Gly Gly Tyr Ser Gly Tyr Glu Tyr Ala
156      5      10      15      20
157 Trp Ser Ser Glu Ser Asp Phe Gly Thr
158      25
160 <210> SEQ ID NO: 14
161 <211> LENGTH: 29
162 <212> TYPE: PRT
163 <213> ORGANISM: Bombyx mori
165 <400> SEQUENCE: 14
166 Gly Ser Ser Gly Phe Gly Pro Tyr Val Ala His Gly Gly Tyr Ser Gly Tyr Glu Tyr Ala
167 1      5      10      15      20
168 Trp Ser Ser Glu Ser Asp Phe Gly Thr
169      25
171 <210> SEQ ID NO: 15
172 <211> LENGTH: 29
173 <212> TYPE: PRT
174 <213> ORGANISM: Bombyx mori
176 <400> SEQUENCE: 15
177 Gly Ser Ser Gly Phe Gly Pro Tyr Val Ala Asn Gly Gly Tyr Ser Gly Tyr Glu Tyr Ala

```

## RAW SEQUENCE LISTING

DATE: 02/09/2005

PATENT APPLICATION: US/10/789,494B

TIME: 17:16:28

Input Set : A:\pto.kd.txt

Output Set: N:\CRF4\02092005\J789494B.raw

```

178          5          10          15          20
179 Trp Ser Ser Glu Ser Asp Phe Gly Thr
180          25
182 <210> SEQ ID NO: 16
183 <211> LENGTH: 29
184 <212> TYPE: PRT
185 <213> ORGANISM: Bombyx mori
187 <400> SEQUENCE: 16
188 Gly Ser Ser Gly Phe Gly Pro Tyr Val Ala Asn Gly Gly Tyr Ser Gly Tyr Glu Tyr Ala
189          5          10          15          20
190 Trp Ser Ser Glu Ser Asp Phe Gly Thr
191          25
193 <210> SEQ ID NO: 17
194 <211> LENGTH: 29
195 <212> TYPE: PRT
196 <213> ORGANISM: Bombyx mori
198 <400> SEQUENCE: 17
199 Gly Ser Ser Gly Phe Gly Pro Tyr Val Ala Asn Gly Gly Tyr Ser Gly Tyr Glu Tyr Ala
200          5          10          15          20
201 Trp Ser Ser Glu Ser Asp Phe Gly Thr
202          25
204 <210> SEQ ID NO: 18
205 <211> LENGTH: 28
206 <212> TYPE: PRT
207 <213> ORGANISM: Bombyx mori
209 <400> SEQUENCE: 18
210 Gly Ser Ser Gly Phe Gly Pro Tyr Val Asn Gly Gly Tyr Ser Gly Tyr Glu Tyr Ala Trp
211          5          10          15          20
212 Ser Ser Glu Ser Asp Phe Gly Thr
213          25
215 <210> SEQ ID NO: 19
216 <211> LENGTH: 29
217 <212> TYPE: PRT
218 <213> ORGANISM: Bombyx mori
220 <400> SEQUENCE: 19
221 Gly Ser Ser Gly Phe Gly Pro Tyr Val Ala Asn Gly Gly Tyr Ser Gly Tyr Glu Tyr Ala
222          5          10          15          20
223 Trp Ser Ser Glu Ser Asp Phe Gly Thr
224          25
226 <210> SEQ ID NO: 20
227 <211> LENGTH: 32
228 <212> TYPE: PRT
229 <213> ORGANISM: Bombyx mori
231 <400> SEQUENCE: 20
232 Gly Ser Ser Gly Phe Gly Pro Tyr Val Ala Asn Gly Gly Tyr Ser Arg Arg Glu Gly Tyr
233          5          10          15          20
234 Glu Tyr Ala Trp Ser Ser Lys Ser Asp Phe Glu Thr
235          25          30
237 <210> SEQ ID NO: 21

```

## RAW SEQUENCE LISTING

DATE: 02/09/2005

PATENT APPLICATION: US/10/789,494B

TIME: 17:16:28

Input Set : A:\pto.kd.txt

Output Set: N:\CRF4\02092005\J789494B.raw

238 &lt;211&gt; LENGTH: 43

239 &lt;212&gt; TYPE: PRT

240 &lt;213&gt; ORGANISM: Bombyx mori

242 &lt;400&gt; SEQUENCE: 21

243 Ala Ala Ser Ser Val Ser Ser Ala Ser Ser Arg Ser Tyr Asp Tyr Ser Arg Arg Asn Val

244 5 10 15 20

245 Arg Lys Asn Cys Gly Ile Pro Arg Arg Gln Leu Val Val Lys Phe Arg Ala Leu Pro Cys

246 25 30 35 40

247 Val Asn Cys

249 &lt;210&gt; SEQ ID NO: 22

250 &lt;211&gt; LENGTH: 262

251 &lt;212&gt; TYPE: PRT

252 &lt;213&gt; ORGANISM: Bombyx mori

254 &lt;400&gt; SEQUENCE: 22

255 Met Lys Pro Ile Phe Leu Val Leu Leu Val Ala Thr Ser Ala Tyr Ala Ala Pro Ser Val

256 5 10 15 20

257 Thr Ile Asn Gln Tyr Ser Asp Asn Glu Ile Pro Arg Asp Ile Asp Asp Gly Lys Ala Ser

258 25 30 35 40

259 Ser Val Ile Ser Arg Ala Trp Asp Tyr Val Asp Asp Thr Asp Lys Ser Ile Ala Ile Leu

260 45 50 55 60

261 Asn Val Gln Glu Ile Leu Lys Asp Met Ala Ser Gln Gly Asp Tyr Ala Ser Gln Ala Ser

262 65 70 75 80

263 Ser Val Ala Gln Thr Ala Gly Ile Ile Ala His Leu Ser Ala Gly Ile Pro Gly Asp Ala

264 85 90 95 100

265 Cys Ala Ala Ala Asn Val Ile Asn Ser Tyr Thr Asp Gly Val Arg Ser Gly Asn Phe Ala

266 105 110 115 120

267 Gly Phe Arg Gln Ser Leu Gly Pro Phe Phe Gly His Val Gly Gln Asn Leu Asn Leu Ile

268 125 130 135 140

269 Asn Gln Leu Val Ile Asn Pro Gly Gln Leu Arg Tyr Ser Val Gly Pro Ala Leu Gly Cys

270 145 150 155 160

271 Ala Gly Gly Gly Arg Ile Tyr Asp Phe Glu Ala Ala Trp Asp Ala Ile Leu Ala Ser Ser

272 165 170 175 180

273 Asp Ser Ser Phe Leu Asn Glu Glu Tyr Cys Ile Val Lys Arg Leu Tyr Asn Ser Arg Asn

274 185 190 195 200

275 Ser Gln Ser Asn Asn Ile Ala Ala Tyr Ile Thr Ala His Leu Leu Pro Pro Val Ala Gln

276 205 210 215 220

277 Val Phe His Gln Ser Ala Gly Ser Ile Thr Asp Leu Leu Arg Gly Val Gly Asn Gly Asn

278 225 230 235 240

279 Asp Ala Thr Gly Leu Val Ala Asn Ala Gln Arg Tyr Ile Ala Gln Ala Ala Ser Gln Val

280 245 250 255 260

281 His Val

283 &lt;210&gt; SEQ ID NO: 23

284 &lt;211&gt; LENGTH: 120

285 &lt;212&gt; TYPE: PRT

286 &lt;213&gt; ORGANISM: Antheraea yamamai

288 &lt;400&gt; SEQUENCE: 23

289 Met Arg Val Thr Ala Phe Val Ile Leu Cys Cys Ala Leu Gln Tyr Ala Thr Ala Asn Asn

290 5 10 15 20

291 Leu His His His Asp Glu Tyr Val Asp Asn His Gly Gln Leu Val Glu Arg Phe Thr Thr

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/789,494B

DATE: 02/09/2005  
TIME: 17:16:29

Input Set : A:\pto.kd.txt  
Output Set: N:\CRF4\02092005\J789494B.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:3; Line(s) 42  
Seq#:4; Line(s) 52  
Seq#:9; Line(s) 99,101,103,105,107,109,111  
Seq#:10; Line(s) 122  
Seq#:11; Line(s) 133  
Seq#:12; Line(s) 144  
Seq#:13; Line(s) 155  
Seq#:14; Line(s) 166  
Seq#:15; Line(s) 177  
Seq#:16; Line(s) 188  
Seq#:17; Line(s) 199  
Seq#:18; Line(s) 210  
Seq#:19; Line(s) 221  
Seq#:20; Line(s) 232  
Seq#:21; Line(s) 245  
Seq#:22; Line(s) 255,257,259,261,263,265,269,271,273,275,277,279  
Seq#:23; Line(s) 289,291,293,295,297  
Seq#:25; Line(s) 318,320  
Seq#:27; Line(s) 340  
Seq#:28; Line(s) 351  
Seq#:30; Line(s) 370  
Seq#:34; Line(s) 407  
Seq#:35; Line(s) 417  
Seq#:36; Line(s) 427  
Seq#:37; Line(s) 437  
Seq#:39; Line(s) 456  
Seq#:40; Line(s) 466  
Seq#:42; Line(s) 486  
Seq#:44; Line(s) 505  
Seq#:45; Line(s) 515  
Seq#:46; Line(s) 525  
Seq#:48; Line(s) 544  
Seq#:49; Line(s) 554  
Seq#:51; Line(s) 573  
Seq#:52; Line(s) 583  
Seq#:53; Line(s) 593  
Seq#:55; Line(s) 612  
Seq#:56; Line(s) 623  
Seq#:57; Line(s) 634  
Seq#:58; Line(s) 644  
Seq#:59; Line(s) 654  
Seq#:60; Line(s) 664



**VERIFICATION SUMMARY**

DATE: 02/09/2005

PATENT APPLICATION: US/10/789,494B

TIME: 17:16:29

Input Set : A:\pto.kd.txt

Output Set: N:\CRF4\02092005\J789494B.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:912 M:283 W: Missing Blank Line separator, <400> field identifier



IFWO

## RAW SEQUENCE LISTING

DATE: 02/03/2005

PATENT APPLICATION: US/10/789,494B

TIME: 08:41:29

Input Set : A:\1-24-05 Corrected Sequence Listing.txt

Output Set: N:\CRF4\02032005\J789494B.raw

2 <110> APPLICANT: TSUBOUCHI, Kozo  
 3 YAMADA, Hiromi  
 5 <120> TITLE OF INVENTION: EXTRACTION AND UTILIZATION OF CELL  
 6 GROWTH-PROMOTING PEPTIDES FROM SILK PROTEIN  
 8 <130> FILE REFERENCE: OPS 635  
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/789,494B  
 11 <141> CURRENT FILING DATE: 2004-02-27  
 13 <150> PRIOR APPLICATION NUMBER: JP 2003-55048  
 14 <151> PRIOR FILING DATE: 2003-02-28  
 16 <160> NUMBER OF SEQ ID NOS: 85

Does Not Comply  
Corrected Diskette Needed

(PS.1)

## ERRORED SEQUENCES

160 <210> SEQ ID NO: 14  
 161 <211> LENGTH: 29  
 162 <212> TYPE: PRT  
 163 <213> ORGANISM: Bombyx mori  
 165 <400> SEQUENCE: 14  
 166 Gly Ser Ser Gly Phe Gly Pro Tyr Val Ala His Gly Gly Tyr Ser Gly Tyr Glu Tyr Ala  
 E--> 167 5 10 15 20  
 168 Trp Ser Ser Glu Ser Asp Phe Gly Thr  
 169 25

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/789,494B

DATE: 02/03/2005  
TIME: 08:41:30

Input Set : A:\1-24-05 Corrected Sequence Listing.txt  
Output Set: N:\CRF4\02032005\J789494B.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:3; Line(s) 42  
Seq#:4; Line(s) 52  
Seq#:9; Line(s) 99,101,103,105,107,109,111  
Seq#:10; Line(s) 122  
Seq#:11; Line(s) 133  
Seq#:12; Line(s) 144  
Seq#:13; Line(s) 155  
Seq#:14; Line(s) 166  
Seq#:15; Line(s) 177  
Seq#:16; Line(s) 188  
Seq#:17; Line(s) 199  
Seq#:18; Line(s) 210  
Seq#:19; Line(s) 221  
Seq#:20; Line(s) 232  
Seq#:21; Line(s) 245  
Seq#:22; Line(s) 255,257,259,261,263,265,269,271,273,275,277,279  
Seq#:23; Line(s) 289,291,293,295,297  
Seq#:25; Line(s) 318,320  
Seq#:27; Line(s) 340  
Seq#:28; Line(s) 351  
Seq#:30; Line(s) 370  
Seq#:34; Line(s) 407  
Seq#:35; Line(s) 417  
Seq#:36; Line(s) 427  
Seq#:37; Line(s) 437  
Seq#:39; Line(s) 456  
Seq#:40; Line(s) 466  
Seq#:42; Line(s) 486  
Seq#:44; Line(s) 505  
Seq#:45; Line(s) 515  
Seq#:46; Line(s) 525  
Seq#:48; Line(s) 544  
Seq#:49; Line(s) 554  
Seq#:51; Line(s) 573  
Seq#:52; Line(s) 583  
Seq#:53; Line(s) 593  
Seq#:55; Line(s) 612  
Seq#:56; Line(s) 623  
Seq#:57; Line(s) 634  
Seq#:58; Line(s) 644  
Seq#:59; Line(s) 654  
Seq#:60; Line(s) 664

## VERIFICATION SUMMARY

DATE: 02/03/2005

PATENT APPLICATION: US/10/789,494B

TIME: 08:41:30

Input Set : A:\1-24-05 Corrected Sequence Listing.txt

Output Set: N:\CRF4\02032005\J789494B.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:167 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:14 ✓